

# Claims

[c1] What is claimed is:

1.A remote wireless data storage system for wireless data transmission and storage, the remote wireless data storage system comprising:

a remote data processing subsystem for receiving an audio signal, the remote data processing subsystem comprising:

an audio signal input module for receiving the audio signal;

a first processor electrically connected to the audio signal input module for processing the audio signal received by the audio signal input module to generate transmission data; and

a first wireless transmission module electrically connected to the first processor for wireless transmission of the transmission data; and

a central data processing subsystem for data storage, the central data processing subsystem comprising:

a second wireless transmission module for receiving the transmission data from the first wireless transmission module;

a second processor electrically connected to the second

wireless transmission module for processing the transmission data received by the second wireless transmission module to generate storage data; and  
a storage device electrically connected to the second processor for storing the storage data generated by the second processor.

[c2] 2.The system of claim 1, wherein the remote data processing subsystem further comprises an audio signal output module electrically connected to the first processor for outputting a reconstructed audio signal, the second processor processes the storage data retrieved from the storage device to generate reconstructed transmission data, the second wireless transmission module receives the reconstructed transmission data and outputs the reconstructed transmission data to the first wireless transmission module using wireless transmission, the first wireless transmission module receives the reconstructed transmission data from the second wireless transmission module, and the first processor processes the reconstructed transmission data received by the first wireless transmission module to generate the reconstructed audio signal.

[c3] 3.The system of claim 1, wherein the central data processing subsystem is a computer system.

[c4] 4.A remote wireless data storage system for wireless data transmission and storage, the remote wireless data storage system comprising:

- a remote data processing subsystem for receiving an audio signal, the remote data processing subsystem comprising:
  - an audio signal input module for receiving the audio signal;
  - a first processor electrically connected to the audio signal input module for processing the audio signal received by the audio signal input module to generate transmission data; and
  - a first wireless transmission module electrically connected to the first processor for wireless transmission of the transmission data; and
- a central data processing subsystem for data storage, the central data processing subsystem installed in a computer system comprising:
  - a second wireless transmission module for receiving the transmission data from the first wireless transmission module;
  - a second processor electrically connected to the second wireless transmission module for processing the transmission data received by the second wireless transmission module to generate digital data;
  - a third processor electrically connected to the second

processor for processing the digital data received from the second processor to generate storage data; and a storage device electrically connected to the third processor for storing the storage data generated by the third processor.

[c5] 5.The system of claim 4, wherein the remote data processing subsystem further comprises an audio signal output module electrically connected to the first processor for outputting a reconstructed audio signal,the third processor processes the storage data retrieved from the storage device to generate reconstructed digital data, the second processor processes the reconstructed digital data received from the third processor to generate reconstructed transmission data, the second wireless transmission module receives the reconstructed transmission data and outputs the reconstructed transmission data to the first wireless transmission module using wireless transmission, the first wireless transmission module receives the reconstructed transmission data from the second wireless transmission module, and the first processor processes the reconstructed transmission data received by the first wireless transmission module to generate the reconstructed audio signal.

[c6] 6.The system of claim 4, wherein the computer system comprises a system chipset and a CPU (Central Process-

ing Unit) for maintaining the operation of the computer system; and when the computer system is in a power-off state, the second wireless transmission module, the second processor, the third processor, and the storage device operate as usual to maintain the operation of the central data processing subsystem.

[c7] 7.The system of claim 6, wherein the system chipset is the South Bridge chipset.

[c8] 8.The system of claim 4, wherein the computer system comprises an Audio CODEC (Coder-Decoder) electrically connected to the third processor for outputting a reconstructed audio signal;the third processor processes the storage data retrieved from the storage device to generate reconstructed digital data, and the Audio CODEC processes the reconstructed digital data generated by the third processor to generate the reconstructed audio signal.

[c9] 9.A remote wireless data storage system component set for transmitting data to and for storing data in a computer system using wireless transmission, the remote wireless data storage system component set comprising: a remote data processing subsystem for receiving an audio signal, the remote data processing subsystem comprising:

an audio signal input module for receiving the audio signal;

a first processor electrically connected to the audio signal input module for processing the audio signal received by the audio signal input module to generate transmission data; and

a first wireless transmission module electrically connected to the first processor for wireless transmission of the transmission data; and

a central data processing subsystem component set, which can be plugged into the computer system to form a central data processing subsystem, for receiving the transmission data from the remote data processing subsystem and for data storage using the computer system, the central data processing subsystem component set comprising:

a second wireless transmission module for receiving the transmission data from the first wireless transmission module; and

a second processor electrically connected to the second wireless transmission module for processing the transmission data received by the second wireless transmission module to generate digital data, and for outputting the digital data into the computer system to store the digital data in the computer system.

[c10] 10. The remote wireless data storage system component set of claim 9, wherein the remote data processing subsystem further comprises an audio signal output module electrically connected to the first processor for outputting a reconstructed audio signal, the computer system processes the digital data stored in the computer system to generate reconstructed digital data, the second processor processes the reconstructed digital data generated by the computer system to generate reconstructed transmission data, the second wireless transmission module receives the reconstructed transmission data and outputs the reconstructed transmission data to the first wireless transmission module using wireless transmission, the first wireless transmission module receives the reconstructed transmission data from the second wireless transmission module, and the first processor processes the reconstructed transmission data received by the first wireless transmission module to generate the reconstructed audio signal.

[c11] 11. The remote wireless data storage system component set of claim 9, wherein when the computer system is in a power-off state, the second wireless transmission module and the second processor operate as usual to maintain the operation of the central data processing subsystem.

[c12] 12.A data storage method using a remote wireless data storage system, wherein the remote wireless data storage system comprises a remote data processing subsystem and a central data processing subsystem, the remote data processing subsystem comprises an audio signal input module, a first processor, and a first wireless transmission module, and the central data processing subsystem comprises a second wireless transmission module, a second processor, and a storage device; the method comprising:

- processing an audio signal received by the audio signal input module with the first processor to generate transmission data;
- receiving the transmission data generated by the first processor with the first wireless transmission module and transmitting the transmission data with the first wireless transmission module to the second wireless transmission module using wireless transmission;
- receiving the transmission data with the second wireless transmission module from the first wireless transmission module using wireless transmission;
- processing the transmission data received by the second wireless transmission module with the second processor to generate storage data; and
- storing the storage data generated by the second pro-



cessor with the storage device.

[c13] 13. The method of claim 12, wherein the remote data processing subsystem further comprises an audio signal output module for outputting a reconstructed audio signal; the method further comprising:  
processing the storage data retrieved from the storage device with the second processor to generate reconstructed transmission data;  
receiving the reconstructed transmission data generated by the second processor with the second wireless transmission module and transmitting the reconstructed transmission data with the second wireless transmission module to the first wireless transmission module using wireless transmission;  
receiving the reconstructed transmission data with the first wireless transmission module from the second wireless transmission module; and  
processing the reconstructed transmission data received by the first wireless transmission module with the first processor to generate the reconstructed audio signal.

[c14] 14. A data storage method using a remote wireless data storage system, wherein the remote wireless data storage system comprises a remote data processing subsystem and a central data processing subsystem, the remote data processing subsystem comprises an audio

signal input module, a first processor, and a first wireless transmission module, the central data processing subsystem comprises a second wireless transmission module, a second processor, and a computer system, and the computer system comprises a third processor for controlling data storage and a storage device for data storage; the method comprising:

processing an audio signal received by the audio signal input module with the first processor to generate transmission data;

receiving the transmission data generated by the first processor with the first wireless transmission module and transmitting the transmission data with the first wireless transmission module to the second wireless transmission module using wireless transmission;

receiving the transmission data with the second wireless transmission module from the first wireless transmission module;

processing the transmission data received by the second wireless transmission module with the second processor to generate digital data;

processing the digital data generated by the second processor with the third processor to generate storage data; and

storing the storage data generated by the third processor with the storage device.

[c15] 15. The method of claim 14, wherein the remote data processing subsystem further comprises an audio signal output module for outputting a reconstructed audio signal; the method further comprising:

- processing the storage data retrieved from the storage device with the third processor to generate reconstructed digital data;
- processing the reconstructed digital data generated by the third processor with the second processor to generate reconstructed transmission data;
- receiving the reconstructed transmission data generated by the second processor with the second wireless transmission module and transmitting the reconstructed transmission data with the second wireless transmission module to the first wireless transmission module using wireless transmission;
- receiving the reconstructed transmission data with the first wireless transmission module from the second wireless transmission module using wireless transmission;
- and
- processing the reconstructed transmission data received by the first wireless transmission module with the first processor to generate the reconstructed audio signal.

[c16] 16. The method of claim 14, wherein the computer system further comprises an Audio CODEC

(Coder–Decoder); the method further comprising:  
processing the storage data retrieved from the storage device with the third processor to generate reconstructed digital data; and  
processing the reconstructed digital data generated by the third processor with the Audio CODEC to generate a reconstructed audio signal.

[c17] 17.The method of claim 14, wherein the computer system further comprises a CPU (Central Processing Unit) for maintaining the operation of the computer system; the method further comprising: when the computer system is in a power–off state, the second wireless transmission module, the second processor, the third processor, and the storage device operate as usual to maintain the operation of the central data processing subsystem.